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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/601,685 | 06/23/2003 | Tatsuo Shimofurutani | KASA:026 | 7994 |

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EXAMINER

PETERSON, KENNETH E

ART UNIT PAPER NUMBER

3724

DATE MAILED: 01/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|---------------------------------------|--|--|
| Office Action Summary | Application No. 10/601,685 | Applicant(s) SHIMOFURUTANI, TATSUO | |
| | Examiner Kenneth E Peterson | Art Unit 3724 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 November 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) 4-9 and 11-13 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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1. New claims 9 and 11-13 belong to non-elected groups, via their dependency from withdrawn claims. New claim 10 will be examined.
2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the teeth being bent towards the pulley, as in amended claim 1, must be shown or the feature(s) canceled from the claim(s). It is noted that figure 4 appears to show no bend whatsoever. No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-3 and 10 are rejected under 35 U.S.C. 103(a).

Applicant has admitted that band saws mounted on pulleys are old and well known in the lumber cutting industry. However, Applicant has not admitted that all of the teeth of these bandsaws are bent to one side. An example of an admitted prior art bandsaw is the patent to Nakahara et al.'135, who teaches that oversetting the teeth to one side can produce a curved cut (lines 48-56, column 1).

Examiner takes Official Notice that it is well known to bend all of the teeth to one side in order to create a saw blade that produces a curved cut, for making arcuate products. An example of this is the patent to Waggerman '945, who shows teeth bent at a tooth base to produce a curved cut. A second example is to Dolah '875, who also shows bent teeth to produce a curved cut. It would have been obvious to one of ordinary skill in the art to have modified any one of the admitted prior art band saws, for example Nakahara, by bending all of the teeth to one side, as is old and well known and taught by Waggerman or Dolah, in order to create a curving kerf and thus make an arcuate product.

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Whether the teeth are bent inward (towards the pulley) or outward (away from the pulley) is simply a matter of whether an operator wants to make concave cuts (inward) or convex cuts (outward), and is therefor considered to be obvious.

In regards to claims 2 and 3, Examiner takes Official Notice that it is old and well known to have projecting tooth tips of generally the recited dimension. Examples of such are the patents to Kobayashi et al., Kawakami et al. and Kataoka et al. It would have been obvious to one of ordinary skill in the art to have made projections with the recited dimensions on the tooth tips of the modified bandsaw, in order to effectively widen the kerf and thus prevent blade binding.

In regards to claim 10, it is noted that this functional recitation does not infer any structure not shown by the above references.

5. Applicant's arguments have been fully considered but they are not persuasive.

Applicant has overcome the rejection using the Biedermann reference.

Applicant argues against the rejection employing Waggerman, noting that Waggerman is a circular saw. Examiner has cited the additional example of Dolah to show that this is known with linear blades as well.

Applicant also states that there is no motivation to modify a band saw thusly. However, both Waggerman and Dolah clearly teach bending the teeth to one side for the purpose of producing a curved cut, and thus one of ordinary skill would be motivated to modify a band saw thusly, since it is often desirable to create products having curved surfaces.

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Applicant further argues that Waggerman does not teach bending at “a tooth base line”. Examiner looks to Applicant’s drawings for a definition of where this “tooth base line” is, and sees that it means “adjacent the bottom of the tooth gullet (24) but not coincident with the bottom of the tooth gullet (24)”, as seen best in figure 3. Both Waggerman and Dolah meet this definition.

6. Applicant’s amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ken Peterson whose telephone number is 571-272-

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4512. The examiner can normally be reached on Monday thru Thursday between 7am and 5pm.

In lieu of mailing, it is encouraged that all formal responses be faxed to 703-872-9306. If attempts to reach the examiner are unsuccessful, the examiner's supervisor, Allan Shoap can be reached on 571-272-4514.

kp
January 3, 2005


KENNETH E. PETERSON
PRIMARY EXAMINER